

Docket No.: 242831US0

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF GROUP: 1796

Hiroshi TAKEI, et al.

SERIAL NO: 10/667,671 EXAMINER: ZIMMER

FILED: September 23, 2003

FOR: HEAT CONDUCTIVE SILICONE RUBBER COMPOSITE SHEET

DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

Sir:

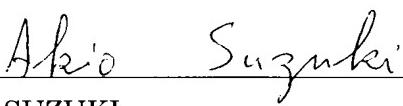
Now comes Akio SUZUKI who deposes and states that:

1. I am a graduate of OSAKA UNIVERSITY and received my bachelor's degree in the year 1975.
2. I have been employed by Shin-Etsu Chemical Co., Ltd. for 33 years as a researcher for R&D in the field of applications of silicones.
3. I conducted the following measurement to prove that the materials used for the intermediate layers of the present invention are non-porous. The TEONEX film with a thickness of $25 \mu\text{m}$ used in Example 3 at page 14, line 6 of the specification as a material for the intermediate layer is a polyethylene-naphthalate (PEN) film from Teijin DuPont Films. TEONEX films with a thickness of $25 \mu\text{m}$ include four kinds of film types, i.e. TEONEX Q51, TEONEX Q51DW, TEONEX Q81 and TEONEX Q83, as shown in the product information sheets attached to the Declaration filed on January 29, 2008. Among these, TEONEX Q51 was used in Example 3 as a material for the

intermediate layer. SEM photographs of TEONEX Q51 were taken as follows: The film, a photographic subject, was fixed to a metal plate by using a double-stick tape, and the surface of the film was subjected to sputtering, as usually conducted when an object is an insulator, using an appropriate amount of platinum-palladium by means of a sputtering apparatus (brand name: Ion Sputter E-1030, manufactured by Hitachi Ltd.). After sputtering, the film was observed by a scanning electron microscope (SEM)(brand name: S-4700, manufactured by Hitachi Ltd.). Three SEM photographs of different magnifications (x 100, x 1000 and x 10000) thus obtained are attached hereto. As shown by the SEM photographs, TEONEX Q51 film is non-porous.

4. The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

5. Further deponent saith not.


Akio SUZUKI

April 4, 2008
Date

Customer Number

22850

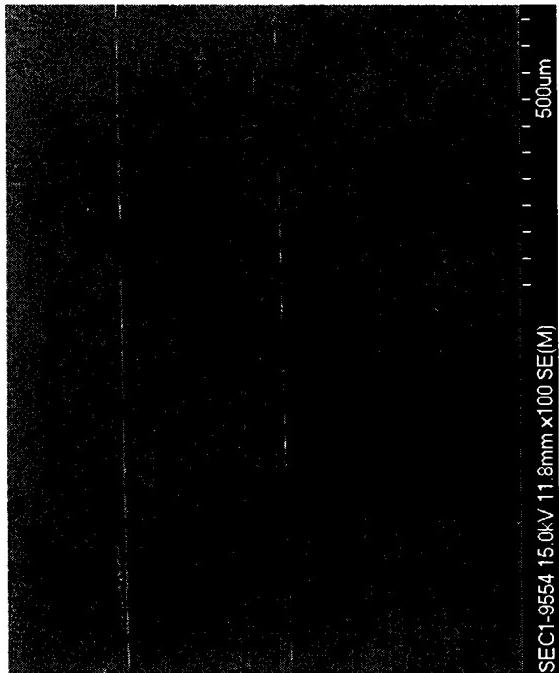
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(OSMMN 05/06)

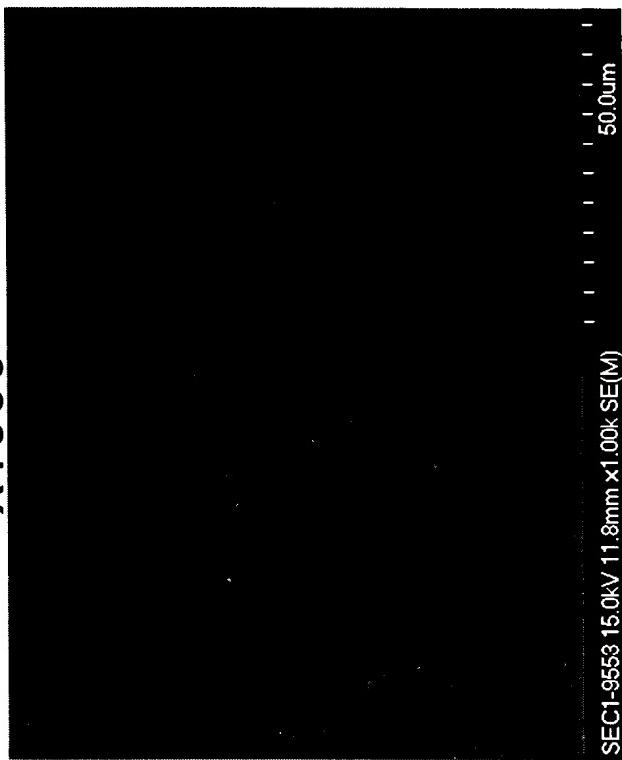
Teonex

x100



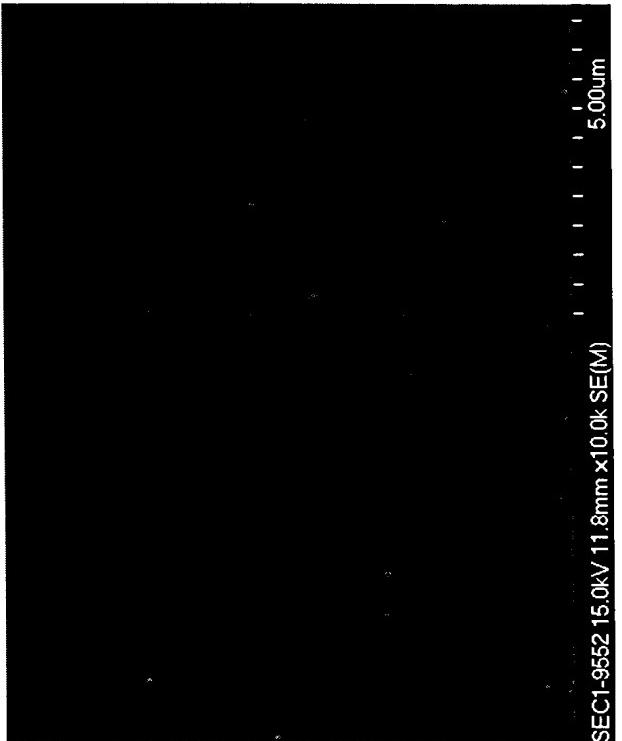
SEC1-9554 15.0kV 11.8mm x100 SE(M)

x1000



SEC1-9553 15.0kV 11.8mm x1.00k SE(M)

x10000



SEC1-9552 15.0kV 11.8mm x10.0k SE(M)